

CLAIMS

What is claimed is:

- 5 1. A pharmaceutical preparation comprising a manufactured peptide having the formula pGlu-R¹-Pro, wherein R¹ is Leu, Tyr or Val, or pharmaceutically acceptable salts thereof, and a pharmaceutically acceptable carrier.
2. The peptide of claim 1 having the formula pGlu-Leu-Pro-NH₂.
3. The peptide of claim 1 having the formula pGlu-Tyr-Pro-NH₂.
4. The peptide of claim 1 having the formula pGlu-Val-Pro-NH₂.
- 15 5. A method of treatment of depression, schizophrenia or affective disorders in a mammal comprising the following steps:
- a) providing a therapeutically effective amount of a composition comprising a peptide or pharmaceutically acceptable salt thereof of the formula pGlu-R¹-Pro, wherein R¹ is Leu, Tyr or Val;
- 20 b) administering the composition to the mammal.
6. The method of claim 5, wherein the composition further comprises a pharmaceutically acceptable carrier.
- 25 7. The method of claim 5, wherein administering comprises administering by a method of administration selected from the group consisting of oral administration and parenteral administration.
8. The method of claim 5 wherein the peptide is pGlu-Leu-Pro-NH₂.

9. The method of claim 5 wherein the peptide is pGlu-Tyr-Pro-NH₂.

10. The method of claim 5 wherein the peptide is pGlu-Val-Pro-NH₂.

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11. A method for providing therapy for drug dependence in a mammal comprising the following steps:

a) providing a therapeutically effective amount of a composition comprising a peptide or pharmaceutically acceptable salt thereof of the formula pGlu-R²-Pro, wherein R² is Glu, Phe, Leu, Tyr or Val;

b) administering the composition to the mammal.

12. The method of claim 11, wherein the composition further comprises a pharmaceutically acceptable carrier.

13. The method of claim 11, wherein administering comprises administering by a method of administration selected from the group consisting of oral administration and parenteral administration.

14. The method of claim 11 wherein the peptide is pGlu-Glu-Pro-NH₂.

15. The method of claim 11 wherein the peptide is pGlu-Phe-Pro-NH₂.

16. The method of claim 11 wherein the peptide is pGlu-Leu-Pro-NH₂.

17. The method of claim 11 wherein the peptide is pGlu-Tyr-Pro-NH₂.

18. The method of claim 11 wherein the peptide is pGlu-Val-Pro-NH₂.

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19. A method for providing analgesia in a mammal comprising the following steps:

a) providing a therapeutically effective amount of a composition comprising a peptide or pharmaceutically acceptable salt thereof of the formula $\text{pGlu-R}^2\text{-Pro}$, wherein R^2 is Glu, Phe, Leu, Tyr or Val;

5 b) administering the composition to the mammal.

20. The method of claim 19, wherein the composition further comprises a pharmaceutically acceptable carrier.

10 21. The method of claim 19, wherein administering comprises administering by a method of administration selected from the group consisting of oral administration and parenteral administration.

22. The method of claim 19 wherein the peptide is pGlu-Glu-Pro-NH_2 .

15 23. The method of claim 19 wherein the peptide is pGlu-Phe-Pro-NH_2 .

24. The method of claim 19 wherein the peptide is pGlu-Leu-Pro-NH_2 .

25. The method of claim 19 wherein the peptide is pGlu-Tyr-Pro-NH_2 .

20 26. The method of claim 19 wherein the peptide is pGlu-Val-Pro-NH_2 .

27. A method for inducing analeptic stimulation in a mammal comprising the following steps:

25 a) providing a therapeutically effective amount of a composition comprising a peptide or pharmaceutically acceptable salt thereof of the formula $\text{pGlu-R}^3\text{-Pro}$, wherein R^3 is Glu, Leu or Val;

b) administering the composition to the mammal.

28. The method of claim 27, wherein the composition further comprises a pharmaceutically acceptable carrier.

29. The method of claim 27, wherein administering comprises administering by a method of administration selected from the group consisting of oral administration and parenteral administration.

30. The method of claim 27 wherein the peptide is pGlu-Glu-Pro-NH₂.

31. The method of claim 27 wherein the peptide is pGlu-Leu-Pro-NH₂.

32. The method of claim 27 wherein the peptide is pGlu-Val-Pro-NH₂.